

ABSTRACT

An aerosolization apparatus comprises a housing defining a chamber having one or
5 more air inlets. The chamber is sized to receive a capsule which contains an aerosolizable
pharmaceutical formulation. The aerosolization apparatus further comprises a puncturing
mechanism within the housing. The puncturing mechanism comprises an alignment guide and a
puncture member, wherein the alignment guide comprises a surface adapted to contact the capsule
while the puncture member is advanced into the capsule to create an opening in the capsule. At
10 least a portion of the surface is sloped relative to the longitudinal axis of the capsule. Alternatively
or additionally, the surface may comprise one or more protrusions. An end section is associated
with the housing. The end section is sized and shaped to be received in a user's mouth or nose so
that the user may inhale through the end section to inhale aerosolized pharmaceutical formulation
that has exited the capsule through the opening created in the capsule. The alignment guide allows
15 for more consistent puncturing of the capsule and a longer lifetime of the apparatus.